ABSTRACT OF DISCLOSURE

A method of advertising an address of a domain name service (DNS) server present, for example, on an IPv6 network by searching a location of the DNS server on a router network subnet using a dynamic routing protocol, storing link state information of the router indicating the DNS server existence in the router subnet, in a link state advertisement of the router, and delivering the link state advertisement to all routers within an autonomous system, to which the router belongs. When the router having the location of the DNS server is requested by another router to provide the DNS server address, the router replies to the requesting router, and the requesting router receiving the reply, advertises a router advertisement message containing the DNS server address to a subnet to which the requesting router belongs. Accordingly, a network can be set without manually setting DNS server addresses at hosts.